

In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently amended) Vitrification furnace comprising:
a crucible; and
at least one oxygen plasma torch on an upper part of the crucible and at least one inductor winding outside the crucible, the oxygen plasma torch configured to create an oxidising atmosphere in the furnace, characterised in that the inductor winding is arranged under the crucible.
2. (Previously presented) Vitrification furnace according to claim 1, characterised in that the crucible comprises a sole plate made of refractory material and a shell placed upright on the sole plate, the shell having a continuous structure around a circumference and being made of metallic material.
3. (Previously presented) Vitrification furnace according to claim 1, wherein the at least one plasma torch further comprises a first plasma torch and a second plasma torch, the first and second plasma torches configured to be electrically polarised to create an arc between each other.
4. (Previously presented) Vitrification furnace according to claim 3, characterised in that the torches are moveable in the crucible.
5. (Previously presented) Vitrification furnace according to claim 4, characterised in that the torches are free to slide approximately vertically with respect to the inductor winding.
6. (Previously presented) Vitrification furnace according to claim 1, characterised in that the torch is laterally offset from the inductor winding.

7-11. (Cancelled)

12. (Currently amended) Vitrification furnace according to claim ~~4~~1, characterised in that the oxidising atmosphere in the furnace prevents formation of a metallic phase in furnace load contents in the crucible.

13. (Previously presented) Vitrification furnace according to claim 1, wherein the torch exclusively heats furnace load content initially, wherein the torch and inductor winding both operate thereafter to simultaneously heat the furnace load contents.

14. (Previously presented) Vitrification furnace according to claim 5, characterised in that the first and second torches heat the furnace load in the crucible and are brought close to the furnace load contents during heating.